

HIMALAYAN LEAF FUNGI.

Dr. James Fleming, late of Delhi, has forwarded us a small but interesting collection made by himself during a trip to the Himalayas. He informs us that they were obtained at a considerable elevation, corresponding to a temperate zone. It is worthy of note that two British species, *Æcidium rubellum* and the *Uredo* of the agrimony are amongst the number. The *Uromyces* on box leaves appears to correspond with the *Puccinia Buxi* of Europe. Until now we are not aware that any *Puccinia* has been found on a crucifer. Dr. Fleming's specimen was accompanied by the siliqua, and it is not improbable that the *Puccinia* occurred on some species of *Brassica* or *Sinapis*. It is not often that a small collection of only ten specimens possesses so much interest. It serves to indicate what a rich unexplored country for the mycologist lies at the base of the Himalayas.

Uredo punctoidea. *Cooke.* — Hypophyllous, aggregated in irregular patches circumscribed by the veins of the leaves. Sori minute, punctiform, at first sub-hemispherical, then ruptured above. Pseudo-spores nearly globose or oval, orange, tuberculose.

On pinnate leaves of some leguminous tree. Himalayas.

Closely resembling in habit and appearance *Uredo Hypericorum*.

Uredo Potentillarum. *D.C.*—On leaves of *Agrimonia*. Himalayas.

Uromyces ambiens. *Cooke.* — Hypophyllous, scattered. Sori irregular, confluent, dark brown, compact, forming rings, enclosing a cluster of spermogonia in the centre. Pseudo spores brown, obovate, with long slender hyaline pedicels.

On box leaves (*Buxus sempervirens*?). Himalayas.

Uredo Clematidis. *Berk.*—On leaves of *Clematis*. Himalayas.

Puccinia Cruciferarum. *Cooke.*—Hypophyllous, scattered or in circinate clusters. Sori irregular, pulverulent-vinous brown. Pseudo-spores, brown, elliptical, scarcely constricted, on short fugacious pedicels, apiculate above.

On leaves of some cruciferous plant. Himalayas.

In habit resembling *Pucc. pulverulenta*, Grev., but darker and with different fruit.

Puccinia dissiliens. *Cooke.* — Hypophyllous, scattered. Sori discoid, convex, compact, dark brown. Pseudo spores on long hyaline pedicels, brown, constricted at the septum, freely separating into two subconical cells, of which the basilar usually remains attached to the pedicel.

On leaves of *Rumex*. Himalayas.

Æcidium rubellum. *Pers.*—On leaves of *Rumex*. Himalayas.

Ailographum vagum. *Desm. (?)*—On coriaceous leaves. Himalayas.

Without fruit, but probably this species. It occurs on the same leaves with an *Erineum*.

Volutella. *Sp.* (?)—A black discoid fungus on coriaceous leaves; the disc beset with long rigid black bristles, which are expanded at the base, is amongst the collection; but there is no fruit, only a profusion of long slender hyaline threads. It is difficult even to determine the genus with certainty.

Septotrichum. *Sp.*—This production, similar to *Septotrichum Sieberi*, Corda, is not a true fungus, but of the same nature as *Phyllerium* and *Erineum*. The tufts of moniliform cells appear to burst through the cuticle, as in the parasitic *Coniomycetes*, but there is no evidence or indication that the cells are reproductive, neither have any organs corresponding to spores been found associated with any of the so-called species. They are all sub-tropical forms, and seem to correspond with the *Erineum* and *Phyllerium* of temperate regions. All of these are now regarded as peculiar conditions of the tissues, and will so remain until some reproductive system can be discovered.

In addition to the foregoing, Dr. Fleming reports that he has met with *Phragmidium bulbosum*, *gracile*, *obtusatum* and *mucronatum*—*Puccinia variabilis*, *umbelliferarum*, and *syngenesiarum*, *Coleosporium pingue* and *Peridermium Pini*. Specimens of these we have not seen.

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A SPHÆRIACEOUS PARASITE ON PEZIZA.

BY J. DE SEYNES.

In the March number of "Grevillea" you have given (p. 143) interesting particulars of a parasite on *Peziza*. Permit me to call attention to a case of parasitism of another Sphæriaceous fungus on a living *Peziza*. This *Peziza* has not yet been published; it was found by Dunal on old dog's dung (album græcum). It is of one millimetre in diameter, between fleshy and ceraceous. One of the specimens I have found presented a little black spot on the external surface. Seen through the microscope this black spot appeared to be a perithecium. It was in the form of a barrel, its base intermixed with the parenchyma of the *Peziza*, with a large ostiolum, and of olivaceous colour. The fungus being too fully ripe exhibited no asci, but the quadriseptate sporidia, also of an olivaceous colour, issued from the apical opening. It seems to me to resemble the genus *Lophiostoma*. It is clear that this perithecium does not belong to the *Peziza* alone, for I have found it also on a very young and small specimen of *Xylaria hypoxylon* only 12 millimetres in length. It was placed on the highest, and most tender part. The perithecium and sporidia had exactly the same form and color. It was also ripe and did not exhibit asci. This seems to approach *Lophiostoma macrostoma*, in which the sporidia are sometimes quadriseptate, but the sporidia of the present species